WHAT IS CLAIMED

1. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence as set forth in SEQ ID NO:1, SEQ ID NO:3, or SEQ ID NO:9;

(b) a nucleotide sequence encoding the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(c) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of (a) or (b), wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(d) a nucleotide sequence complementary to any of (a)-(c).

2. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide that is at least about 70, 75, 80, 85, 90, 95, 96, 97, 98, or 99 percent identical to the poly-peptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, wherein the polypeptide has an activity of the poly-peptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(b) a nucleotide sequence encoding an allelic variant or splice variant of the nucleotide sequence as set forth in SEQ ID NO:1, SEQ ID NO:3, or SEQ ID NO:9, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(c) a nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, or SEQ ID NO:9; (a) or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(d) a nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, or SEQ ID NO:9, or (a)-(c) comprising a fragment of at least about 16 nucleotides;

(e) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(d), wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(f) a nucleotide sequence complementary to any of (a)-(c).

3. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, with at least one conservative amino acid substitution, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(b) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one amino acid insertion, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(c) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one amino acid deletion, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(d) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 which has a C- and/or N-terminal truncation, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(e) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(f) a nucleotide sequence of (a)-(e) comprising a fragment of at least about 16 nucleotides;

(g) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(f), wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(h) a nucleotide sequence complementary to any of (a)-(e).

4. A vector comprising the nucleic acid molecule of Claims 1, 2, or 3.

5. A host cell comprising the vector of Claim 4.

6. The host cell of Claim 5 that is a eukaryotic cell.

7. The host cell of Claim 5 that is a prokaryotic cell.

8. A process of producing an IL-17-like polypeptide comprising culturing the host cell of Claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.

9. A polypeptide produced by the process of Claim 8.

10. The process of Claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native IL-17-like polypeptide operatively linked to the DNA encoding the IL-17-like polypeptide.

11. The isolated nucleic acid molecule according to Claim 2, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit and the Smith-Waterman algorithm.

12. A process for determining whether a compound inhibits IL-17-like polypeptide activity or production comprising exposing a host cell according to Claim 5, 6 or 7 to the compound and measuring IL-17-like polypeptide activity or production in said host cell.

13. An isolated polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

14. An isolated polypeptide comprising the amino acid sequence selected from the group consisting of:

(a) an amino acid sequence for an ortholog of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(b) an amino acid sequence that is at least about 70, 80, 85, 90, 95, 96, 97, 98, or 99 percent identical to the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(c) a fragment of the amino acid sequence set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 comprising at least about 25 amino acid residues, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(d) an amino acid sequence for an allelic variant or splice variant of either the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, or at least one of (a)-(c) wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

15. An isolated polypeptide comprising the amino acid sequence selected from the group consisting of:

(a) the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one conservative amino acid substitution, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(b) the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one amino acid insertion, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(c) the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10 with at least one amino acid deletion, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10;

(d) the amino acid sequence as set forth in SEQ ID NO 2 which has a C- and/or N-terminal truncation, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(e) the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10, with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

16. An isolated polypeptide encoded by the nucleic acid molecule of Claims 1, 2, or 3.

17. The isolated polypeptide according to Claim 14 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit and the Smith-Waterman algorithm.

18. A polypeptide according to claim 14 or 15 wherein the amino acid at position 67 of SEQ ID NO: 2 is asparagine or gluatamine.

19. A polypeptide according to claim 14 or 15 wherein the amino acid at position 69 of SEQ ID NO: 2 is arganine, lysine, glutamine or asparagine.

20. A polypeptide according to claim 14 or 15 wherein the amino acid at position 94 of SEQ ID NO: 2 is serine, alanine or cysteine.

21. A polypeptide according to claim 14 or 15 wherein the amino acid at position 96 of SEQ ID NO: 2 is serine, alanine or cysteine.

22. A polypeptide according to claim 14 or 15 wherein the amino acid at position 101 of SEQ ID NO: 2 is valine, isoleucine, lecuine, phenylalanine, alanine or norleucine.

23. A polypeptide according to claim 14 or 15 wherein the amino acid at position 104 of SEQ ID NO: 2 is serine, or threonine.

24. A polypeptide according to claim 14 or 15 wherein the amino acid at position 129 of SEQ ID NO: 2 is serine, alanine or cysteine.

25. A polypeptide according to claim 14 or 15 wherein the amino acid at position 140 of SEQ ID NO: 2 is serine, alanine or cysteine.

26. A polypeptide according to claim 14 or 15 wherein the amino acid at position 186 of SEQ ID NO: 2 is serine, alanine or cysteine.

27. An antibody produced by immunizing an animal with a peptide comprising an amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

28. An antibody or fragment thereof that specifically binds the polypeptide of Claims 13, 14, or 15.

29. The antibody of Claim 28 that is a monoclonal antibody.

30. A hybridoma that produces a monoclonal antibody that binds to a peptide comprising an amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

31. A method of detecting or quantitating the amount of IL-17 like polypeptide using the anti-IL-17 like antibody or fragment of Claims 27, 28, or 29.

32. A selective binding agent or fragment thereof that specifically binds at least one polypeptide wherein said polypeptide comprises the amino acid sequence selected from the group consisting of:

(a) the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(b) a fragment of the amino acid sequence set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10; and

(C) a naturally occurring variant of (a) or (b).

33. The selective binding agent of Claim 32 that is an antibody or a fragment thereof.

34. The selective binding agent of Claim 32 that is a humanized antibody.

35. The selective binding agent of Claim 32 that is a human antibody or a fragment thereof.

36. The selective binding agent of Claim 32 that is a polyclonal antibody or a fragment thereof.

37. The selective binding agent of Claim 32 that is a monoclonal antibody or a fragment thereof.

38. The selective binding agent of Claim 32 that is a chimeric antibody or a fragment thereof.

39. The selective binding agent of Claim 32 that is a CDR-grafted antibody or a fragment thereof.

40. The selective binding agent of Claim 32 that is an anti-idiotypic antibody or a fragment thereof.

41. The selective binding agent of Claim 32 which is a variable region fragment.

42. The variable region fragment of Claim 41 which is a Fab or a Fab' fragment.

43. A selective binding agent or fragment thereof comprising at least one complementarity-determining region with specificity for a polypeptide having the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

44. The selective binding agent of Claim 32 which is bound to a detectable label.

45. The selective binding agent of Claim 32 which antagonizes IL-17-like polypeptide biological activity.

46. The selective binding agent of claim 45 which inhibits binding of IL-17 like polypeptide to IL-17 receptor RB-2 or RB-3.

47. The selective binding agent of claim 45 wherein the IL-17 receptor RB-2 or RB-3 has the amino acid sequence of SEQ ID NO: 18 or SEQ ID NO: 20.

48. A method for treating, preventing or ameliorating a disease, condition or disorder comprising administering to a patient an effective amount of a selective binding agent according to Claim 32.

49. A selective binding agent produced by immunizing an animal with a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

50. A hybridoma that produces a selective binding agent capable of binding a polypeptide according to Claims 1, 2, or 3.

51. A composition comprising the polypeptide of Claims 13, 14, or 15 and a pharmaceutically acceptable formulation agent.

52. The composition of Claim 51 wherein the pharmaceutically acceptable formulation agent is a carrier, adjuvant, solubilizer, stabilizer or anti-oxidant.

53. The composition of Claim 51 wherein the polypeptide comprises the amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:10.

54. A polypeptide comprising a derivative of the polypeptide of Claims 13, 14, or 15.

55. The polypeptide of Claim 54 which is covalently modified with a water-soluble polymer.

56. The polypeptide of Claim 55 wherein the water-soluble polymer is selected from the group consisting of polyethylene glycol, monomethoxy-polyethylene glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone) polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide co-polymers, polyoxyethylated polyols, and polyvinyl alcohol.

57. A composition comprising a nucleic acid molecule of Claims 1, 2 or 3 and a pharmaceutically acceptable formulation agent.

58. The composition of Claim 57, wherein said nucleic acid molecule is contained in a viral vector.

59. A viral vector comprising a nucleic acid molecule of Claims 1, 2, or 3.

60. A fusion polypeptide comprising the polypeptide of Claims 13, 14 or 15 fused to a heterologous amino acid sequence.

61. The fusion polypeptide of Claim 60 wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

62. A method for treating, preventing or ameliorating a medical condition comprising administering to a patient the polypeptide of Claims 13, 14 or 15 or the polypeptide encoded by the nucleic acid of Claims 1, 2, or 3.

63. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of Claims 13, 14, or 15 or the polypeptide encoded by the nucleic acid molecule of Claims 1, 2, or 3 in a sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

64. A device comprising:

(a) a membrane suitable for implantation; and

(b) cells encapsulated within said membrane, wherein said cells secrete a protein of Claims 13, 14 or 15, and wherein said membrane is permeable to said protein and impermeable to materials detrimental to said cells.

65. A method of identifying a compound which binds to a polypeptide comprising:

(a) contacting the polypeptide of Claims 13, 14 or 15 with a compound; and

(b) determining the extent of binding of the polypeptide to the compound.

66. A method of modulating levels of a polypeptide in an animal comprising administering to the animal the nucleic acid molecule of Claims 1, 2, or 3.

67. A transgenic non-human mammal comprising the nucleic acid molecule of Claims 1, 2, or 3.

68. A human ortholog of the amino acid sequence of SEQ ID NO:10.

69. A method of treating, preventing or ameliorating a pathological condition mediated by an IL-17 like polypeptide comprising administering a therapeutically effective amount of a molecule that specifically binds to the IL-17 like polypeptide.

70. The method of claim 69 wherein said molecule is the selective binding agent of claim 32 or 34.

71. The method of claim 69 wherein said pathological condition is related to immune system dysfunction, inflammation or infection.

72. A method of inhibiting undesirable interaction of IL-17 receptor like polypeptide with IL-17E ligand comprising administering a therapeutically effective amount of a molecule capable of inhibiting binding of IL-17 like polypeptide to IL-17 receptor RB-2 or RB-3.

73. The method of claim 72 wherein said molecule is the selective binding agent of claim 32 or 34.

74. A method of antagonizing the activity of an IL-17 like polypeptide comprising administering an effective amount of a polypeptide of claim 14 or 15 or an IL-17 like polypeptide selective binding agent, small molecule, antisense oligonucleotide, peptide or derivatives thereof having specificity for IL-17 like polypeptide.

75. A method of treating a pathological condition comprising administering an IL-17 like polypeptide antagonist in an amount effective to reduce the level of at least one of IL-2, IL-4, IL-5, G-CSF, eotaxin or IFN-γ in the body.

76. The method of claim 75 wherein the pathological condition is an inflammatation related condition.

77. A method of treating a pathological condition comprising administering an Il-17 like polypeptide agonist in an amount effective to increase production of at least one of IL-2, IL-4, IL-5, G-CSF, eotaxin or IFN-γ in the body.

78. A method of treating a pathological condition comprising administering at least one IL-17 like polypeptide selected from the group consisting of SEQ ID No: 2, 4, or 10 in an amount effective to increase production of at least one of IL-2, IL-4, IL-5, G-CSF, eotaxin or IFN-γ in the body.